Table 4-1: Evaluation Matrix - Methodology

Evaluation Criteria	Performance Measure	Description	Data Source	Methodology
Mobility				
Transit	Transit Mode Share (All Trips)	Measures the percentage of trips on transit. A larger percentage of trips on transit is positive.	ARC Travel Demand Model	TRANSIT MODE SHARE (ALL TRIPS) is measured using the ARC Travel Demand Model. Values lower than 10.0 percent are considered poor, values between 10.0 percent and 15.0 percent are considered fair, and values greater than 15.0 percent are considered good.
	New Transit Riders (Regional)	Measures the change in transit ridership at the regional level. Higher transit ridership is positive.	ARC Travel Demand Model	NEW TRANSIT RIDERS (REGIONAL) is measured using the ARC Travel Demand Model. Values lower than 10,000 persons are considered poor, values between 10,000 persons and 20,000 persons are considered fair, and values greater than 20,000 persons are considered good.
	Integration With Planned And Existing Transit Systems	Evaluates the compatibility of scenarios with the existing and planned regional transit system based on the ability of the technology service plan to provide a seamless interface with the regional transit system. Scenarios that require more transfers are rated lower.	ARC ARIS GIS Data	INTEGRATION WITH PLANNED AND EXISTING TRANSIT SYSTEMS is measured using the ARC ARIS GIS Data overlaid with existing transit system networks in ArcGIS to determine the number of transfers required. Values lower than 2 transfers are considered good, values between 2 transfers and 3 transfers are considered fair, and values greater than 3 transfers are considered poor.
Travel Demand	Total VMT (Corridor)	Measures the total vehicle miles traveled (VMT) in the corridor. Provides insight with regard to the vehicle throughput of the scenarios.	ARC Travel Demand Model	TOTAL VMT (CORRIDOR) is measured using the ARC Travel Demand Model. This measure is reported for information purposes only and is not assigned a rating.
	Total Person Trips (Corridor)	Measures the throughput of the corridor, independent of transportation mode. The higher the number the better the rating.	ARC Travel Demand Model	TOTAL PERSON TRIPS (CORRIDOR) is measured using the ARC Travel Demand Model. Values lower than 250,000 person trips are considered poor, values between 250,000 person trips and 500,000 person trips are considered fair, and values greater than 500,000 person trips are considered good.

Table 4-1: Evaluation Matrix - Methodology

Evaluation Criteria	Performance Measure	Description	Data Source	Methodology
Travel Efficiency	% VMT In Congested Conditions (Regional)	Evaluates the percentage of travel in congested conditions. The more travel in congested conditions is reduced, the better the rating.	ARC Travel Demand Model	% VMT IN CONGESTED CONDITIONS (REGIONAL) is measured using the ARC Travel Demand Model. Values lower than 10.0 percent are considered good, values between 10.0 percent and 19.0 percent are considered fair, and values greater than 19.0 percent are considered poor.
	VHT Per Capita (Regional)	Determines the total vehical hours traveled (VHT) per person. Lower VHT per capita is desirable.	ARC Travel Demand Model	VHT PER CAPITA (REGIONAL) is measured using the ARC Travel Demand Model. Values lower than 1.00 VHT per capita are considered good, values between 1.00 VHT per capita and 2.00 VHT per capita are considered fair, and values greater than 2.00 VHT per capita are considered poor.
	% VMT In Congested Conditions (Heavy Trucks Only) (Corridor)	Evaluates the efficiency of freight movement in the corridor.	ARC Travel Demand Model	% VMT IN CONGESTED CONDITIONS (HEAVY TRUCKS ONLY) (CORRIDOR) is measured using the ARC Travel Demand Model. Values lower than 25.0 percent are considered good, values between 25.0 percent and 40.0 percent are considered fair, and values greater than 40.0 percent are considered poor.
	PM Peak V/C Ratio (Corridor)	Measures the vehicles to capacity (V/C) ratio in the corridor. A V/C ratio of less than one is desirable.	ARC Travel Demand Model	PM PEAK V/C RATIO (CORRIDOR) is measured using the ARC Travel Demand Model. Values lower than 0.80 are considered good, values between 0.80 and 1.00 are considered fair, and values greater than 1.00 are considered poor.
	PM Peak Congested Speed (Corridor)	Evaluates the average congested speed in the corridor. Higher congested speeds are more desirable.	ARC Travel Demand Model	PM PEAK CONGESTED SPEED (CORRIDOR) is measured using the ARC Travel Demand Model. Values lower than 15.0 mph are considered poor, values between 15.0 mph and 20.0 mph are considered fair, and values greater than 20.0 mph are considered good.
	% VMT In Congested Conditions (SOV Only) (Corridor)	Measures the efficiency of single occupancy vehicle movement in the corridor.	ARC Travel Demand Model	% VMT IN CONGESTED CONDITIONS (SOV ONLY) (CORRIDOR) is measured using the ARC Travel Demand Model. Values lower than 25.0 percent are considered good, values between 25.0 percent and 40.0 percent are considered fair, and values greater than 40.0 percent are considered poor.

Table 4-1: Evaluation Matrix - Methodology

Evaluation Criteria	Performance Measure	Description	Data Source	Methodology
Accessibility				
	Travel Times Between Corridor And Selected Regional Activity Centers By Mode	Determines the travel times between selected regional activity centers for each scenario. Shorter travel times are more desirable.	ARC Travel Demand Model	TRAVEL TIMES BETWEEN CORRIDOR AND SELECTED REGIONAL ACTIVITY CENTERS BY MODE is measured using the ARC Travel Demand Model.
		Drive	From Northside Drive to Cumberland/ Galleria	Values lower than 30.0 minutes are considered good, values between 30.0 minutes and 35.0 minutes are considered fair, and values greater than 35.0 minutes are considered poor.
		Drive	From Northside Drive to Midtown	Values lower than 10.0 minutes are considered good, values between 10.0 minutes and 15.0 minutes are considered fair, and values greater than 15.0 minutes are considered poor.
		Drive	From Northside Drive to Airport	Values lower than 30.0 minutes are considered good, values between 30.0 minutes and 35.0 minutes are considered fair, and values greater than 35.0 minutes are considered poor.
		Transit	From Northside Drive to Cumberland/ Galleria	Values lower than 30.0 minutes are considered good, values between 30.0 minutes and 45.0 minutes are considered fair, and values greater than 45.0 minutes are considered poor.
		Transit	From Northside Drive to Midtown	Values lower than 10.0 minutes are considered good, values between 10.0 minutes and 15.0 minutes are considered fair, and values greater than 15.0 minutes are considered poor.
		Transit	From Northside Drive to Airport	Values lower than 35.0 minutes are considered good, values between 35.0 minutes and 50.0 minutes are considered fair, and values greater than 50.0 minutes are considered poor.

Table 4-1: Evaluation Matrix - Methodology

Evaluation Criteria	Performance Measure	Description	Data Source	Methodology
	2030 Population Within 1/4 Mile Of Stations	Measures population close to transit stations. Scenarios with higher populations located near stations are preferable.	ARC ARIS GIS Data	2030 POPULATION WITHIN 1/4 MILE OF STATIONS is measured using the ARC ARIS GIS Data and ArcGIS software to perform a buffer analysis within a 1/4 mile radius of the stations. Values lower than 10,000 persons are considered poor, values between 10,000 persons and 15,000 persons are considered fair, and values greater than 15,000 persons are considered good.
	2000 EJ Persons Within 1/4 Mile Of Stations	Determines how many EJ persons are located in proximity to transit stations. A larger number of environmental justice (EJ) persons located near stations is more desirable.	ARC ARIS GIS Data	2000 EJ PERSONS WITHIN 1/4 MILE OF STATIONS is measured using the ARC ARIS GIS Data and ArcGIS software to perform a buffer analysis within a 1/4 mile radius of the stations. Values lower than 5,000 persons are considered poor, values between 5,000 persons and 10,000 persons are considered fair, and values greater than 10,000 persons are considered good.
	2030 Employment Within 1/4 Mile Of Stations	Evaluates the number of jobs near transit stations. More employment located near stations is better.	ARC ARIS GIS Data	2030 EMPLOYMENT WITHIN 1/4 MILE OF STATIONS is measured using the ARC ARIS GIS Data and ArcGIS software to perform a buffer analysis within a 1/4 mile radius of the stations. Values lower than 10,000 jobs are considered poor, values between 10,000 jobs and 15,000 jobs are considered fair, and values greater than 15,000 jobs are considered good.
	Number of Regional Attractions Within 1/4 Mile Of Stations	Measures regional attractions close to transit stations. More regional attractions proximate to sations is more desirable.	ARC ARIS GIS Data	NUMBER OF REGIONAL ATTRACTIONS WITHIN 1/4 MILE OF STATIONS is measured using the ARC ARIS GIS Data and ArcGIS software to perform a buffer analysis within a 1/4 mile radius of the stations. Values lower than 2 attractions are considered poor, values between 2 attractions and 4 attractions are considered fair, and values greater than 4 attractions are considered good.
	Number of Local Serving Attractions Within 1/4 Mile Of Stations	Determines local attractions close to transit stations. More local attractions proximate to stations is more desirable.	ARC ARIS GIS And URS Developed GIS Data	NUMBER OF LOCAL SERVING ATTRACTIONS WITHIN 1/4 MILE OF STATIONS is measured using the ARC ARIS GIS And URS Developed GIS Data and ArcGIS software to perform a buffer analysis within a 1/4 mile radius of the stations. Values lower than 4 attractions are considered poor, values between 4 attractions and 8 attractions are considered fair, and values greater than 8 attractions are considered

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Evaluation Criteria	Performance Measure	Description	Data Source	Methodology
Land Use				
	Environmentally Sensitive Sites Impacted	Evaluates the number of environmentally sensitive sites impacted by the scenarios. A lower number of impacts is desirable.	EPA And State Of Georgia Historic Structures Data	ENVIRONMENTALLY SENSITIVE SITES IMPACTED is measured using the EPA And State Of Georgia Historic Structures Data overlaid with the right-of-way required for each scenario using ArcGIS software to determine impacts. Values lower than 3 sites are considered good, values between 3 sites and 5 sites are considered fair, and values greater than 5 sites are considered poor.
	Residences Impacted	Determines the number of residences impacted by the scenarios. A lower number of impacts is preferable.	ARC ARIS Aerial Photography	RESIDENCES IMPACTED is measured using the ARC ARIS Aerial Photography overlaid with the right-of-way required for each alternative using ArcGIS software to determine impacts. Values lower than 5 buildings are considered good, values between 5 buildings and 10 buildings are considered fair, and values greater than 10 buildings are considered poor.
	Businesses Impacted	Measures the number of businesses impacted by the scenarios. A lower number of impacts is desirable.	ARC ARIS Aerial Photography	BUSINESSES IMPACTED is measured using the ARC ARIS Aerial Photography overlaid with the right-of-way required for each scenario using ArcGIS software to determine impacts. Values lower than 10 businesses are considered good, values between 10 businesses and 30 businesses are considered fair, and values greater than 30 businesses are considered poor.
	Churches and Community Facilities Impacted	Evaluates the number of churches and community facilities impacted by the scenarios. A lower number of impacts is desirable.	ARC ARIS Aerial Photography	CHURCHES AND COMMUNITY FACILITIES IMPACTED is measured using the ARC ARIS Aerial Photography overlaid with the right-of-way required for each scenario using ArcGIS software to determine impacts. Values lower than 1 facilities are considered good, values between 1 facilities and 5 facilities are considered fair, and values greater than 5 facilities are considered poor.
	Loss of Developable Land (Acres)	Determines the impact of scenarios on the amount of land available for development.	ARC ARIS GIS And Urban Collage Developed Data	LOSS OF DEVELOPABLE LAND (ACRES) is measured using the ARC ARIS GIS And Urban Collage Developed Data overlaid with the right-of-way required for each scenario using ArcGIS software to calculate the number of acres consumed. Values lower than 10.00 acres are considered good, values between 10.00 acres and 15.00 acres are considered fair, and values greater than 15.00 acres are considered poor.

Table 4-1: Evaluation Matrix - Methodology

Evaluation Criteria	Performance Measure	Description	Data Source	Methodology
Cost Effectiveness				
	Total Cost (2005 Dollars)		GRTA Transit Cost Estimation Methodology And URS Developed Data	TOTAL COST (2005 DOLLARS) is measured using the GRTA Transit Cost Estimation Methodology And URS Developed Data to estimate the cost of roadway and transit improvements in the corridor. Values lower than 100,000,000 are considered good, values between 100,000,000 and 150,000,000 are considered fair, and values greater than 150,000,000 are considered poor.